

Designing Your Landscape

Steve Petersen
Advanced Master Gardener
Utah State University Extension Service

I. Introduction

Personalized landscape defines your home – Creative statement about you
Careful planning, design, installation and care create attractive, functional, landscape
Adds usable living space – different types of spaces
Enhances property values – Good design and maintenance appreciate as they grow

II. Analyze Your Site

a. Soils

Utah soils are naturally alkaline – ancient lake bed
Most new homes have top soil removed or buried and need improvement
What's your soil type – Clay? Silt? Sand? - Soil test USU Extension
Amend soil with organic matter

b. Climate

Utah's climate is a high mountain desert
What's your climate zone – high mountain valley – lower desert elevation?
Hardiness zone - <http://www.usna.usda.gov/Hardzone/ushzmap.html>
Consult local USU Extension offices
Sunset Western Garden Book

c. Orientation of Home

New home?
Minor changes in design can make substantial difference in comfort
Existing home?
Analyze need for shade –
Proper trees can affect summer temp by 20 degrees
Consider winter sun – Solar radiation & tree placement

d. Topography

Natural streams, rocks and slopes influence design
Disadvantage or Hidden Advantage?

III. Make a Plot Map

- a. Simple first step – Graph paper and pencil first step in developing ideas
- b. Draw in accurate property boundaries
- c. Clearly draw in your home – include windows, driveways, doors, etc.
- d. Add in contours – drainage?
- e. Note location of sun and shade areas

IV. Designing Functional Rooms

- a. Public area - Most visible areas
- b. Service areas-
- c. Living area
Consider needs of entire family before finalizing design
Long range planning – sandbox obsolescence

V. Basic Landscape Principles

- a. Proportion
- b. Balance
- c. Variety
- d. Unity

VI. Emphasis –

- a. Use variety to place emphasis where desired

VII. Foundation Plantings

- a. Solve architectural problems
- b. Control plant height genetically not by pruning
- c. Common mistakes

VIII. Choosing Your Design - what do you like?

- a. Create a scrapbook of pictures as you travel
- b. Visit local public gardens
- c. Examine professionally maintained landscapes
- d. Local library – good source of books with photos

IX. Landscape Design

- a. Styles
 - i. European
 - ii. Oriental
 - iii. Wild or Woodland
 - iv. Cottage or English style
 - v. Spanish / Mediterranean
 - vi. Contemporary

- b. Help
 - i. Landscape Architects
 - ii. Landscape Contractors
 - iii. Nurseries or Garden Centers
 - iv. Landscape Designers

X. Maintenance

- a. Lawns
- b. Ground Covers
- c. Flowers
- d. Woody Plants
- e. Weed Control
- f. Tools and Equipment

XI. Right Tree – Right Place –

- a. Shape of tree
- b. Spreading habit of tree
- c. Mature height of tree
- d. Utility rights of way
- e. Relate architecture to plantings

Work Sheets

Minimizing Maintenance

Plan Your Landscape

1. Put water outlets and properly grounded electrical power on all sides of the house.
2. Place the driveway and garage near the kitchen door and place walks so they are direct and convenient.

Lawns

1. Keep lawns open, free from flowers, trees, shrubs and other obstacles.
2. Avoid angles and sharp curves on edges
3. Construct a mowing strip of cinder block, concrete or brick, next to buildings and under fences where lawn is present
4. Keep mowing strips, walks, & driveways, one inch higher than lawn to eliminate hand edging. Drop the lawn in areas where it is above the sidewalk and drives.
5. Use a power edging tool that can be operated while standing.
6. Water only as needed – NOT DAILY. Check sprinkling system to measure water is applied uniformly.
7. Aerate slopes and compacted lawn areas for better penetration.
8. Clean sprinkler heads and flush sprinkling lines each spring.
9. Mow Kentucky Bluegrass regularly at 2 ½ to 3 inch height. Do not allow grass to get over 4 inches high. Don't bag clippings.
10. Apply fertilizer as needed

Ground Covers

1. Use ground covers on steep slopes and other difficult to mow areas – also in shade areas.
2. Replace flower borders with ground cover for reduced maintenance.

Flowers

1. Select and use disease-free flowers requiring minimum care.
2. Keep flower beds small and borders narrow for minimum maintenance.
3. Plant perennials.

Woody Plants

1. Use low growing dwarf shrubs and small trees to reduce pruning. Space plants with growing room.
2. Avoid clipped hedges
3. Use well-adapted, healthy, low-care plants.
4. Avoid placing fruit and nut trees over lawns, drives, walks or the terrace.
5. Plant the best tree that will grow in that spot.
6. Avoid shallow rooted trees that sucker and sprout in the lawn and garden.
7. Amend and improve soils prior to planting to promote good long-term growth.
8. Prune and train trees and shrubs while small to avoid later heavy corrective pruning.
9. Hire professional arborist to prune big trees.
10. Use male trees which produce no seeds.

Weed Control

1. Develop thick healthy turf to keep weeds out.
2. Do not permit weeds to go to seed.
3. Use weed-free manure or commercial fertilizer and mulching materials.
4. Apply pre-emergent fertilizer or spray weeds along ditch banks, fence lines and waste areas.
5. Use bark, sawdust, lawn clippings or other mulches to control weeds. Apply additional fertilizer where mulches are used.
6. Cultivate or hoe weeds when small for easy control. Use a gliding hoe on small weeds.
7. Avoid using stepping stones and open joint flagstone terraces that fill up with weeds.
8. Avoid rock gardens that need hand weeding.
9. Use pavement on driveways, walks, and park-strip to eliminate weeds.
10. Use ground cover to control weeds on slopes and other areas.
11. Control morning glory (field bindweed) and other perennial weeds with chemicals. (Consult local USU extension offices.)

Tools and Equipment

1. Buy high-quality yard-care equipment and keep it in good repair.
2. Provide adequate, orderly, and dry storage space for tools and equipment
3. To avoid lifting, use a low two-wheeled hand truck to haul heavy objects.
4. Use yellow lights near people and white lights elsewhere in the garden to keep insects away from people.
5. String trimmers are fast and easy. Keep them away from trees and shrubs as they can seriously damage the bark.

Miscellaneous

1. Keep edges of walks and drives away from plants, except grass, for snow removal and traffic movement.
2. Use materials requiring minimal maintenance for fences, walls and enclosures.
3. Use a rotary tiller in vegetable and flower gardens. Spade and work soil when moist – not wet.
4. Spade in leaves and other plant residues rather than hauling them to compost pile and back again.

Site Analysis

Drainage

Does water drain away from the house, structures and other areas? YES ____ NO ____
Is there drainage away or onto a neighbor's property? YES ____ NO ____
Are areas of your property below the surrounding property or do they show signs of erosion? YES ____ NO ____

Soil

Is more soil needed? YES ____ NO ____
Does the soil drainage need improvement? YES ____ NO ____
Does your soil need testing? (see your USU Extension Office about a soil test kit.) YES ____ NO ____

Existing Landscape

Do some plant need to be removed or changed? YES ____ NO ____
Does the lawn need improvement? YES ____ NO ____
Are the kinds of existing plants desirable? YES ____ NO ____
Is the general quality of each plant high enough to justify saving it? YES ____ NO ____
Are there more plants than you need? YES ____ NO ____

Natural Features

Are there water features or rocks that you want to feature? YES ____ NO ____
Are there sunken areas that you may need to fill or grade? YES ____ NO ____
Do you have steep slopes that require retaining walls or special plantings? YES ____ NO ____
Does your neighbor's ground elevation affect your landscaping? YES ____ NO ____

Structures (shelter, patio, terrace, fences or walls)

On a separate sheet of paper, evaluate the condition and suitability of all existing structures on your property.
Can the locations or access be improved? YES ____ NO ____
Do the locations of the structures affect plantings? YES ____ NO ____
Are any of the structures too small in relation to the lot? YES ____ NO ____
Do the construction materials blend with the surroundings? YES ____ NO ____
Do utility meters or air conditioner units require screening? YES ____ NO ____
Are more structures needed or planned? YES ____ NO ____

Walks and Drives

Do walks or drives need relocation for greater convenience or attractiveness? YES ____ NO ____
Does either need to be wider? YES ____ NO ____
Does water drain from them? YES ____ NO ____
Can the walk be arranged in a staggered pattern for greater interest? YES ____ NO ____
Is more pavement needed in the recreational or service areas? YES ____ NO ____
Are steps or ramps needed between the different levels? YES ____ NO ____
Would modifying the walk at the entry allow for a courtyard treatment? YES ____ NO ____
Do you need off-street parking? YES ____ NO ____
Is there adequate lighting along the walks and drives? YES ____ NO ____
Do you need secondary walks or will stepping stones carry the traffic? YES ____ NO ____

Extensional Landscapes

Do you want to change the view from or to a neighbor's property? YES ____ NO ____
Are noises from a nearby road a problem? YES ____ NO ____
Do you need more protection and privacy in any areas? YES ____ NO ____
Do you need more protection and privacy in the living or sleeping areas? YES ____ NO ____

Landscape Needs Analysis

FAMILY MEMBERS

NAME	AGE	SEX	HOBBIES
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____

Maintenance time wanted: Hours per week _____

Maintenance Level: Minimum _____ Moderate _____ High _____

Family allergy considerations: _____

PUBLIC AREA

Driveway: _____ Number of Vehicles _____ Off-street parking needed? _____
Entry Walk: _____ Lighting _____ Utilities _____
Structure (fence, walls, decks, etc.) _____

OUTDOOR LIVING AREA

Entertaining:

Large Groups _____ Small Groups _____ Formal _____ Informal _____

Deck or patio material: _____

Seating numbers: Permanent _____ Moveable _____

Shade Required? _____ Where _____

Type: Umbrella _____ Overhead structure _____ Trellis _____ Tree _____ Canopy _____

Recreation:

Lawn Games _____ Area lighted? _____

Badminton (24' x 54') _____ Basketball (40' x 40') _____ Croquet (30' x 60') _____

Horseshoes (20' x 40') _____ Putting green (30' diameter) _____ Tether ball (20' circle) _____

Outdoor Cooking:

Permanent _____ Portable _____ Fuel type (gas, charcoal, propane) _____

Utility Connections: Water _____ Electrical _____ Gas _____ Storage Area _____

Swimming

Permanent _____ Portable _____ Size _____ Shape _____

Decks _____ Size _____ Shape _____ Material _____

Enclosure for pool _____ Fence Size _____ Material _____

Lighting _____ Dressing Facility _____ Equipment Storage _____ Legal Requirements _____ Insurance _____

SERVICE AREA

Special Interest Gardens

Vegetable garden_____ Flower beds_____ Roses_____ Herb garden_____ Containers_____

Fruit trees_____ Grape Vines_____ Greenhouse or cold frame_____ Size_____

Compost bin_____ Clothesline? _____ Permanent? _____ Portable? _____ Trash containers_____

Dog run? _____ Size _____ Doghouse _____ other pet requirements _____

Recreational Vehicle Storage

RV size_____ Boat size _____ Snowmobile/4x4 size _____ Other: _____

Lawnmower and Garden Equipment Storage

Equipment: Mower_____ Hose_____ Tiller_____ Spreader_____ Sprayer_____ Other: _____

Supplies: Fertilizer_____ Soil Amendments_____ Pesticides (separate locked cabinet) _____

Patio Furniture (itemized:) _____

Children's Play Area

Climbing ropes _____ "Junk" playground_____ Sandbox_____ Slide_____ Swings_____ Playhouse_____

Trampoline_____

Shade required_____ Trees_____ Overhead structure_____ Storage (toys, equipment, etc.) _____ Size_____

Fence_____ Height _____ Type_____ Materials_____

Surface Materials: Sand_____ Grass_____ Wood Chips_____ Small gravel_____

Garden Accessories and Features: Sculpture _____ Landscape lighting_____

Water Features: Fountain or Spray _____ Reflecting Pool_____ Fish_____ Plants_____

Bird Interests: Bird feeder_____ Bird attracting plants_____ Birdbath_____ Birdhouse_____

NEW CONSTRUCTION NEEDED

Home Addition_____ Garage_____ Added decks or patios_____ Storage Shed_____

Barns or outbuildings _____

(Locate these on your plot plan so you don't bury utilities, plant trees or pour concrete where you plan to build them.)

Planning Checklist

___ 1. **Draw a plan** of the lot to scale on a sheet of graph paper. Include the exact location and size of the house, garage and other buildings, including position of windows and doors, driveways, walks, and terraces. Indicate existing trees, shrubs, flower borders, property lines, good or bad views, location of septic tank and drain lines, water and sewer lines, utility lines (above and below ground) change of grade or other features.

___ 2. **Show relationship** of public, service and living areas to the house

___ 3. **Plan the public area**, keeping it as small as practical. Design plantings to complement the house.

- ___ (a.) position drives and walks keeping them short
- ___ (b.) provide an open lawn that meets the foundation at one point
- ___ (c.) position shrubs at corners and at the entrance. Use low growing species on low houses.
- ___ (d.) position trees – use small trees to frame and shade low houses. Keep large trees away from structures

___ 4. **Plan the service area**

- ___ (a.) keep it as small as possible and screen it from the street and living area
- ___ (b.) locate clotheslines, garbage cans, and utility needs near the kitchen and wash area
- ___ (c.) provide storage for yard maintenance equipment
- ___ (d.) provide storage for outdoor furniture, playground equipment, etc.
- ___ (e.) where there are small children, place the play area to it is visible from the kitchen
- ___ (f.) include fruit, vegetable and flower gardens if they are desired

___ 5. **Plan the living area**

- (a.) list needs for recreation, entertaining, hobbies and other activities of family members
- (b.) extend living area into the garden from living area of the house
- (c.) provide privacy using vines on fences, stone or block walls, shrubs, hedges, etc.
- (d.) create attractive views from windows and doors of the house
- (e.) keep lawns open for easy mowing; provide mow strips or mulches along edges
- (f.) plant ground covers on heavy slopes and other hard-to-mow areas
- (g.) select plant size by genetics for minimal pruning
- (h.) retain water and subdue weeds with mulches
- (i.) install an irrigation system to distribute water uniformly and reduce maintenance
- (j.) select healthy, pest-free plants that are well adapted to your soil and climate
- (k.) consider garden lighting for interesting nighttime effects

___ 6. **Consider house repair**, remodeling, paint and other needs to enhance the beauty of the setting

Order of procedure on a new home:

1. Drives
2. Walks
3. Terraces
4. Enclosures
5. Irrigation System
6. Trees
7. Lawns
8. Shrubs
9. flowers and other ornamental features